

US EPA ARCHIVE DOCUMENT

December 27, 2006

Richard Greene, Regional Administrator  
USEPA Region 6  
1445 Ross Avenue, Suite 1200  
Dallas, Texas 75202-2733

Dear Administrator Greene,

Please find enclosed the June 1 to December 1, 2006 progress report for the Tulsa Metropolitan Area 8-Hour Ozone Early Action Compact (EAC) prepared by the Indian Nation Council of Governments (INCOG). The purpose of this report is to update accomplishments occurring since our June 2006 submittal including progress toward the goals contained in the Memorandum of Agreement between the Oklahoma Department of Environmental Quality (DEQ) and INCOG. This Memorandum outlines each organization's responsibilities for the scheduled completion of certain traffic improvement projects that will improve air quality as a control strategy for the Tulsa Metropolitan Area 8-Hour Ozone EAC. Also included in this report is DEQ's update of recent ambient ozone data for the Tulsa area.

We are pleased that the Tulsa area continues to remain in compliance with the 8-hour ozone standard and deferral of nonattainment is not necessary. We do, however, remain committed to meeting EAC milestones. An electronic copy of this report is also enclosed on CD.

If your agency has any questions, or needs additional information concerning this submittal, please contact Leon Ashford, of the Air Quality Division of the Department of Environmental Quality at 702-4100.

Sincerely,

Eddie Terrill, Director  
Air Quality Division  
DEQ

ET:LA:gg

Enclosures

c: Jerry Lasker, INCOG

## **Tulsa Area Early Action Compact December 31, 2006 Progress Report**

The Tulsa Metropolitan Statistical Area (TMSA) was designated attainment of the revised 8-hour National Ambient Air Quality Standard (NAAQS) for ozone in April 2004. We have elected to remain in the EAC program because we have exceeded the 8-hour ozone standard in the past and because improving air quality through continued reduction of ozone forming emissions remains a priority.

In compliance with this EAC agreement, INCOG is pleased to provide this semi-annual report documentation to the Oklahoma Department of Environmental Quality and the US EPA.

Implementation of the EAC Tulsa Area Transportation Control Strategy, including substitutions and additional projects, remains completed. Tulsa air quality improvement continues, as confirmed by the 2004-2006 ozone design values. All Tulsa MSA ozone monitors remain in compliance with the NAAQS.

### **PUBLIC REVIEW AND OVERSIGHT**

Public outreach remains an important component of the EAC process. INCOG has continued to maintain an open and systematic dialogue with local businesses, media public and private partners concerning EAC implementation efforts and progress. EAC and air quality improvement efforts have been presented in the following venues:

- a. The INCOG Transportation Technical Advisory Committee. INCOG staff briefed the committee on various air quality updates including EAC progress and associated EAC discussion.
  - July 19, 2006
  - August 16, 2006
  - September 20, 2006
  - October 18, 2006
  - November 15, 2006
- b. The INCOG Transportation Policy Committee. INCOG staff briefed the committee on various air quality updates including EAC progress and associated EAC discussion.
  - July 27, 2006
  - August 31, 2006
  - September 28, 2006
  - October 26, 2006
  - December 7, 2006

- c. The Tulsa Area Clean Cities Stakeholder Meeting included discussion about local air quality improvement issues. INCOG staff briefed the committee on the following stakeholder meeting dates:
  - August 24, 2006
  - October 19, 2006
  - December 19, 2006
- d. Tulsa Area Ozone Alert Public Relations Team Meetings, etc., Air Quality media Updates; and other media air quality awareness.
  - July 10, 2006: PR Team Meeting
  - July 25, 2006: PR Team Meeting
  - August 1, 2006: Ozone Alert! Mid-Season Concert Event at RiverWalk
  - August 8, 2006: PR Team Meeting
  - August 22, 2006: PR Team Meeting
  - August 24, 2006: INCOG Air Quality Committee
  - September 12, 2006: PR Team Meeting
  - September 15, 2006: End of Season Press Event
  - September 26, 2006: PR Team Meeting
  - October 21, 2006: Emerging Energy and Technology Expo
  - October 31, 2006: PR Team Meeting
  - December 13, 2006: PR Team meeting
  - December 19, 2006: PR Team meeting
  -

# **1. Tulsa Area EAC Control Measure - COMPLETED / FULLY IMPLEMENTED**

## **a. Control Measure**

Transportation Emission Reduction Strategy - roadway expansion and intersection improvement projects

## **b. Summary description of control measure**

The Tulsa area EAC emission reduction strategy is a cumulative compilation of transportation improvement projects, implemented and quantified as a single control strategy.

The transportation travel demand model determines a system-wide affect on all roadway links. As previously identified, emission reductions obtained for each unique transportation improvement project cannot be uniquely or effectively estimated on a project by project basis. EAC technical support documentation MOBILE 6 estimated the emission reductions as a result of a cumulative system-wide improvement. To model cumulative transportation improvements, a link-by-link analysis is performed on the entire transportation network. The link-based transportation model attempts to reach equilibrium in travel time for each trip loaded. Numerous parameters such as volume, capacity ration, speed etc. contribute to the overall modeled emission reductions.

Revisions to the State Implementation Plan for the Control of Ozone Air Pollution, submitted by the ODEQ on behalf of the Tulsa Metropolitan Area 8-hour Ozone Early Action Compact, Section 2 Control Strategies provides full description of the control strategy. The technical support documentation in the same SIP plan, Section 3, provides emission reduction demonstration.

**c. Program/Measure Status**

The Transportation Emission Reduction strategy is fully implemented, as documented complete in the following project summary tables:

Capacity Improvement Projects				
Project Title	Description	Total Lanes When Complete	Completion Date	STATUS
<b>EXPRESSWAYS</b>				
US-169 S.	I-244 to 21st Street S.	6 Lanes	COMPLETED	COMPLETED
BA EXPRESSWAY (S.H. 51)	193rd E Ave to Muskogee Turnpike	6 Lanes	COMPLETED	COMPLETED
BA EXPRESSWAY (S.H. 51)	I-44 to 161st E Avenue	6 Lanes	COMPLETED	COMPLETED
Creek Turnpike East	Will Rogers Turnpike to Muskogee Tpk	4 Lanes	COMPLETED	COMPLETED
Broken Arrow South Loop	US-169 to 161st E Ave	4 Lanes	COMPLETED	COMPLETED
Broken Arrow South Loop	Muskogee Tpk to 161st E Ave	4 Lanes	COMPLETED	COMPLETED
Creek Turnpike West	US-75 to Turner Turnpike	4 Lanes	COMPLETED	COMPLETED
Gilcrease Expressway North	US-75 to Lewis	4 Lanes	COMPLETED	COMPLETED
Tisdale Expressway	Apache to 36th Street N	4 Lanes	COMPLETED	COMPLETED
<b>PRIMARY ARTERIALS</b>				
E 91st St S (Washington St.)	Garnett to Main Elm (the 1/2 mile section from Elm to Main project was substituted by an added 1/2 primary arterial section of 61st street - West of Garnett and East of US 169)	3 Lanes	COMPLETED	COMPLETED
61st Street	Garnett to US 169	3 Lanes	COMPLETED	
S.H. 20	Lennapah to US-75	4 Lanes	COMPLETED	COMPLETED
S.H. 67 (151st Street S)	US 75A to US 75	4 Lanes	COMPLETED	COMPLETED
US-64/S MEMORIAL	E 151st St S to E 161st Street	4 Lanes	COMPLETED	COMPLETED
71st Street	Lewis to Florence	6 Lanes	COMPLETED	COMPLETED
71st Street	Harvard to Yale	6 Lanes	COMPLETED	COMPLETED
71st Street	US-169 to Garnett	6 Lanes	COMPLETED	COMPLETED
71st Street	Yale to US-169 S	6 Lanes	COMPLETED	COMPLETED
11th Street	129th E Ave to I-44	4 Lanes	COMPLETED	COMPLETED
<b>SECONDARY ARTERIALS</b>				
E 61st Street South (Albany)	161st E Avenue to 177th E Avenue	3 Lanes	COMPLETED	COMPLETED
S GARNETT ROAD	E 61st Street to E 71st Street South	5 Lanes	COMPLETED	COMPLETED
Admiral	Garnett to 145th E Ave	4 Lanes	COMPLETED	COMPLETED
E 91st Street South	Mingo Rd to US-169 S	4 Lanes	COMPLETED	COMPLETED
E 81st Street South	Garnett Rd. to Main Street (Broken Arrow)	3 Lanes	COMPLETED	COMPLETED
S MINGO ROAD	51st Street to 61st Street	4 Lanes	COMPLETED	COMPLETED
MINGO ROAD	61st Street to 71st Street	4 Lanes	COMPLETED	COMPLETED
S MINGO ROAD	91st Street to US-169 S	4 Lanes	COMPLETED	COMPLETED
Sheridan	61st Street to 71st Street	5 Lanes	COMPLETED	COMPLETED
Sheridan	71st Street to 81st Street	5 Lanes	COMPLETED	COMPLETED
129th E Ave	21st Street S to 31st Street S	4 Lanes	COMPLETED	COMPLETED
Garnett Road	41st Street to 51st Street	4 Lanes	COMPLETED	COMPLETED
Garnett Road	I-244 to 21st Street	4 Lanes	COMPLETED	COMPLETED
<b>PARKWAYS</b>				
RIVERSIDE PARKWAY	81st Street to 101st Street	4 Lanes	COMPLETED	COMPLETED

ROADWAY INTERSECTION IMPROVEMENT PROJECTS				
N-S Street	E-W Street	Description	Completion Date	STATUS
S. Memorial Dr.	93rd Street	Signal Install	COMPLETED	COMPLETED
Riverside Drive	31st Street	Signal Install	COMPLETED	COMPLETED
71st Street S	S. Canton	Signal Install	COMPLETED	COMPLETED
41st Street S	102 E Ave	Signal Install	COMPLETED	COMPLETED
I-44 EB off/on ramp	E 31st St S.	Signal Install	COMPLETED	COMPLETED
S Mingo Rd	E 55th Pl S.	Signal Install	COMPLETED	COMPLETED
S Harvard Av	E 27th Street	Signal Install	COMPLETED	COMPLETED
91st Street S.	S 101st E Av	Signal Install	COMPLETED	COMPLETED
S Mingo Rd	E 66th Street S.	Signal Install	COMPLETED	COMPLETED
Riverside Drive	41st Street	Signal Install	COMPLETED	COMPLETED
51st Street Exit	SH-51 Exit	Signal Install	COMPLETED	COMPLETED
Mingo Road	91st Street	Intersection	COMPLETED	COMPLETED
Union Ave	61st Street	Intersection	COMPLETED	COMPLETED
S. Memorial Dr.	51st Street	Signal Modification	COMPLETED	COMPLETED

## ADDITIONAL PROJECTS IMPLEMENTED AS SUBSTITUTED ROADWAY IMPROVEMENT PROJECTS

N-S Street	E-W Street	Description	Completion Date	STATUS
108th East Avenue	91st Street	Signal Install	COMPLETED	COMPLETED
Harvard Avenue	21st Street	Signal Modification	COMPLETED	COMPLETED
Tulsa County Fair Grounds Gate 12	Tulsa County Fair Grounds Gate 12	Signal Modification	COMPLETED	COMPLETED
Pittsburg Avenue	21st Street	Signal Modification	COMPLETED	COMPLETED
Yale Avenue	21st Street	Signal Modification	COMPLETED	COMPLETED
Cincinnati Avenue	Pine Avenue	Signal Modification	COMPLETED	COMPLETED
Trenton Avenue	Apache Avenue	Signal Modification	COMPLETED	COMPLETED
Utica Avenue	21st Street	Signal Modification	COMPLETED	COMPLETED
Yale Avenue	31st Street	Signal Modification	COMPLETED	COMPLETED
Garnett Avenue	61st Street	Signal Modification	COMPLETED	COMPLETED
Garnett Avenue	81st Street	Signal Modification	COMPLETED	COMPLETED



A. Control Measure	B. Summary Description of Measure	C. Program/Measure Status	D. Specific Implementation Date	E. VOC Reduction	F. NOx Reduction	G. Resources (FTE's, \$\$)	H. Additional Information	
10 Tulsa, OK								
Transportation Emission Reduction Strategy - roadway expansion and intersection improvement projects	Strategy consists of a cumulative compilation of transportation improvement projects throughout the Tulsa Transportation Management Area.	COMPLETE	Dec. 31, 2005	0.02 TPD	2.62 TPD			
Comments:								

## d. VOC Reduction &amp; NOx Reductions

Control 12 – TRANSPORTATION EMISSION REDUCTION STRATEGY			
	On-Road Mobile Emissions Inventory	Tulsa TTMA	
<b>NOx-wkday (Tons Per Day)</b>	New Base 07	50.231	
	Control 12	47.603	
	Difference	-2.628	
	% difference	-5.23%	
<b>VOC-wkday (Tons Per Day)</b>	New Base 07	39.258	
	Control 12	39.238	
	Difference	-0.020	
	% difference	-0.05%	

Source: Environ

## Monitoring update for December 2006

2006 TULSA OKLAHOMA OZONE								
Highest 8 Hour Averages through 10/01/06								
Site			1st	2nd	3rd	4th	03-05 Avg*	04-06 Avg*
03 4th	04 4th	05 4th	(date)	(date)	(date)	(date)	4th Highs	4th Highs
<b>Tulsa West</b> <sup>(144)</sup>			0.085	0.085	0.085	0.085	0.076	0.077
0.081	0.071	0.076	8-Jun	19-Aug	23-Aug	15-Sep		
<b>Tulsa East</b> <sup>(178)</sup>			0.112	0.099	0.091	0.084	0.079	0.079
0.084	0.073	0.081	20-Jul	19-Aug	4-Aug	19-Jul		
<b>Tulsa Central</b> <sup>(1127)</sup>			0.106	0.086	0.082	0.081	0.076	0.077
0.080	0.068	0.082	20-Jul	18-Jul	30-Jun	29-Jun		
<b>Tulsa North</b> <sup>(137)</sup>			0.095	0.094	0.087	0.084	0.079	0.079
0.083	0.071	0.083	20-Jul	18-Jul	30-Jun	29-Jun		
<b>Tulsa South</b> <sup>(174)</sup>			0.107	0.093	0.087	0.078	0.076	0.073
0.086	0.071	0.072	19-Aug	4-Aug	30-Sep	8-Jun		

\*0.085 or greater indicates exceedance of National Ambient Air Quality Standards

Tulsa's ozone design value has improved from an 88ppb in 1999, our modeling base year, to 79ppb in 2006.

The exceedance days for Tulsa Oklahoma are listed below.

Year	Number of	
	days	sites
2006	9	5
2005	6	5
2004	0	5
2003	9	5
2002	6	5
2001	7	5
2000	10	4
1999	14	3